

Abstract

An

a The invention relates to an ellipsometer measurement
apparatus for determining the thickness of a film applied on
a substrate, having a light source ~~not~~ emitting an incoming
beam ~~(9)~~, a transmitting optical system conveying the
polarized incoming beam ~~(9)~~ to an incidence point ~~(P)~~ on the
substrate, and a receiving optical system that has an
analyzer ~~(5.4)~~ and conveys the reflected beam ~~(10)~~ formed at
the incidence point ~~(P)~~ to a photodetector device ~~(5.7,~~
a ~~5.8)~~, the polarization direction of the incoming beam ~~(9)~~
and of the analyzer ~~(5.4)~~ being modified in time relative to
one another, and the intensity changes produced thereby
a being evaluated by way of an evaluation device ~~(7)~~ in order
15 to determine the film thickness. Easy handling and accurate
measurement of the film thickness, even on difficult-to-
access measured objects having differing curvatures, are
a achieved by the fact that an angle measurement device ~~(5.7,~~
a ~~5.8, 7.1)~~ is provided with which the angle ~~([beta])~~ of the
20 a reflected beam ~~(10)~~ relative to a tangential plane of the
a substrate ~~(1)~~ at the incidence point ~~(P)~~ can be sensed, and
that the film thickness can be determined by way of the
a evaluation device ~~(7)~~ as a function of the angle ~~([beta])~~
a that is sensed ~~(Figure 1)~~